

|   |                                                                                                                                                                                               |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2 | $\left(\frac{6}{2}\right) \times (2x^2)^2 \times \left(-\frac{3}{x}\right)^{6-2}$ $\text{or } \left(\frac{6}{2}\right) \times 2^6 \times (x^2)^2 \times \left(-\frac{3}{2x}\right)^{6-2}$     |
|   | <p>Identifying the relevant term of the form:</p> $k \times (2x^2)^2 \times \left(-\frac{3}{x}\right)^{6-2}$ $\text{or } k \times 2^6 \times (x^2)^2 \times \left(-\frac{3}{2x}\right)^{6-2}$ |
|   | = 4860                                                                                                                                                                                        |
|   |                                                                                                                                                                                               |

|   |                                                      |
|---|------------------------------------------------------|
| 1 | Use of $b^2 - 4ac$                                   |
|   | Obtain $k^2 - 20k + 64$                              |
|   | Attempt solution of quadratic equation or inequality |
|   | Obtain $k < 4$ , $k > 16$ or clear equivalent        |
|   |                                                      |

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| 1 | $6\sin^2 \theta - \sin \theta - 2 = 0 \Rightarrow [(2\sin \theta + 1)(3\sin \theta - 2) = 0]$ |
|   | $\sin \theta = -\frac{1}{2} \text{ or } \sin \theta = \frac{2}{3}$                            |
|   | $\theta = -150^\circ, -30^\circ, 41.8^\circ, 138.2^\circ$                                     |
|   |                                                                                               |

|   |                                                                                                                                                 |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | {Stretch} {factor 2} {'parallel to y-axis' or 'in y-direction' or 'vertically'}                                                                 |
|   | {Translation} $\begin{pmatrix} \{0\} \\ \{-14\} \end{pmatrix}$ or $\{-14\}$ {'parallel to the y-axis' or 'in the y-direction' or 'vertically'.} |
|   | <b>Alternative Method for Question 1</b>                                                                                                        |
|   | {Translation by} $\begin{pmatrix} \{0\} \\ \{-7\} \end{pmatrix}$ or $\{-7\}$ {'parallel to the y-axis' or 'in the y-direction' or 'vertically'} |
|   | {Stretch} {factor 2} {'parallel to y-axis' or 'in y-direction' or 'vertically'}                                                                 |
|   |                                                                                                                                                 |

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| 2 | $2\left(\frac{-y-4}{2}\right)y + 5y^2 = 24$ $\text{or } 2\left(\frac{24-5y^2}{2y}\right) + y + 4 [=0]$ $\text{or } 2x(-4-2x) + 5(-4-2x)^2 = 24$ |
|   | $4y^2 - 4y = 24 \quad \text{or} \quad 16x^2 + 72x + 56 [=0]$                                                                                    |
|   | $\Rightarrow y = -2, y = 3 \quad \text{or} \quad x = -1, x = -\frac{7}{2}$                                                                      |
|   | $(-1, -2), \left(-\frac{7}{2}, 3\right)$                                                                                                        |
|   |                                                                                                                                                 |

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| 3 | $\binom{5}{3} \text{ or } \binom{5}{2} \text{ or } 10 \times (px^2)^{5-3} \times \left(\frac{4}{p}x\right)^3$ |
|   | $10p^2 \times \frac{64}{p^3}$                                                                                 |
|   | $\frac{\text{Their integer } k}{p} [x^7] = 1280[x^7]$                                                         |
|   | $p = \frac{1}{2}$                                                                                             |
|   |                                                                                                               |